

PROJECT ARRANGEMENT NUMBER ONE

TO THE

APACHE ATTACK HELICOPTER

MEMORADUM OF UNDERSTANDING

BETWEEN

THE SECRETARY OF DEFENSE

ON BEHALF OF

THE DEPARTMENT OF DEFENSE

OF THE

UNITED STATES OF AMERICA

AND

THE SECRETARY OF STATE FOR DEFENCE

OF THE

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

CONCERNING

THE DEVELOPMENT AND PRODUCTION

OF THE

APACHE ATTACK HELICOPTER

AN/APR-48A RADAR FREQUENCY INTERFEROMETER

ENHANCED USER DATA MODULE PROGRAMMING CAPABILITY

(Short Title: AN/APR-48A RFI UDM Programming Capability)

January 10, 2003

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## Section I

### INTRODUCTION

1.1 This Project Arrangement (PA) is entered into pursuant to the Memorandum of Understanding (MOU) between the Secretary of Defense on behalf of the Department of Defense of the United States of America, hereafter referred to as "US DOD", and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, hereafter referred to as "UK MOD", concerning Cooperation on the Future Development, Operation and Support of the Apache Attack Helicopter (AH) of 22 May 2000 (US/UK Apache MOU), the provisions of which are hereby incorporated by reference.

1.2 This PA outlines the arrangements for the US DOD and UK MOD joint development of in-country AN/APR-48A Radar Frequency Interferometer (RFI) User Data Module (UDM) programming capability that will enable the RFI UDM mission data set to be reconfigured within 48 hours.

## Section II

### DEFINITIONS of TERMS and ABBREVIATIONS

2.1 The Participants have jointly decided upon the following definitions for provisions used in this PA.

Administrative Support	US DOD Contractual, program management, and financial support staff
Contracting Authority	The entity within the US DOD which will draw up, place, and administer contracts for and on behalf of the Participants
Contracting Officer	A person representing a Contracting Agency of a Participant who has the authority to enter into, administer, and/or terminate Contracts
Cost Ceiling	The upper limit of funds that the Participants are prepared to make available for the Project
Final Acceptance Test	Successful installation and completion of operability testing at the Air Warfare Centre, Lincolnshire, UK.
GFE	Government Furnished Equipment. Equipment owned by the Government of a Participant which is provided to the Contractor in order that they may fulfill the terms of the contract
Project Arrangement Execution (PA)	Signature of the PA by duly authorized representatives or authorized delegates of the Department of Defense of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland
Participants	Those nations participating in the Project following PA execution

Project

Development of in-country capabilities to program the RFI UDM mission data set

RFP

Request For Proposal. The document issued to the contractor requesting the submission of the proposals which will be used to negotiate the contract

### Section III

#### OBJECTIVES

3.1 The objective of this PA is to jointly develop in-country capabilities to program the Apache Attack Helicopter AN/APR-48A RFI UDM mission data set (the Project). The Participants intend to procure an enhanced RFI UDM programming capability that will enable the RFI UDM mission data set to be reconfigured and validated within 48 hours.

## Section IV

### SCOPE OF WORK

4.1 Under this PA, the Participants will work to confirm the feasibility of the Project and to develop a statement of work, contractual documentation and Financial Management Procedures Document (FMPD) to jointly procure, test and accept an enhanced RFI UDM programming capability that will be established in each country utilizing separate, unique intelligence databases and database interfaces. The enhanced RFI UDM programming capability procurement, to include software applications, hardware, training and support services, will provide the following:

- Mission Data Extractor
- Mission Data Load Creation
- Mission Data Load Performance Verification
- Mission Data Load Fielding
- Training
- Post Production Support
- Mission Data Load Analysis and Performance Simulation (optional)

4.2 The Participants will jointly define a common set of user requirements for the enhanced RFI UDM programming capability. These requirements and the methods of validation will be documented in a jointly developed and signed document. The joint user requirement document will include integration requirements for each country. Any country unique requirements will be addressed separately.

4.3 The Participants will agree on the intelligence database(s) to be used during this effort. The UK intelligence data can be used for all common aspects of this Project with written permission from the appropriate participating representative for this activity. These common aspects are defined as, but not limited to, development and testing activities. In the event the UK intelligence database is not used for this activity, a common shared intelligence database will be used as the basis to develop and validate the enhanced RFI UDM programming capability within the laws governing the release of US DOD intelligence data.

4.4 UK MOD may develop a global UDM mission data set utilizing UK MOD furnished intelligence data and the Mission Data Extractor. The contractor may, with prior UK written permission, use this global mission data set during the acquisition activities under this PA.

4.5 The Participants will each provide the contractor with an interface definition document describing their respective intelligence database interface(s) to the Mission Data Extractor.

4.6 The Participants will establish acceptance criteria for the enhanced RFI UDM programming capability procurement activities upon PA execution and prior to release of a Request For Proposal (RFP).

4.7 The Training Needs Analysis (TNA) will be performed at a UK facility with the Participants' representatives present. The training material for use by the Participants will be developed based on the TNA. Training courses will be procured for both the US DOD and UK MOD training under this PA.

4.8 Baseline mission data set validation testing of the enhanced RFI UDM programming capability will be performed using US DOD assets and with the mutually agreed upon intelligence database described in paragraph 4.3. The baseline validation testing will consist of ground-based aircraft testing to determine the Probability of Detection and Probability of Correct Identification. The RFI system performance parameters are specified in RFI System Functional Specification, 213A400, Revision A.

4.9 Verification testing of the RFI system performance utilizing a UDM mission data set derived from the mutually agreed upon intelligence database described in paragraph 4.3 and generated by the enhanced RFI UDM programming capability will be performed using bench test or laboratory facilities. These tests will include, but not be limited to: dwell sequencing, emitter identification, single emitter response time, maximum emitter response time, and UDM content validation.

4.10 Final acceptance testing of the enhanced RFI UDM programming capability may be performed as part of the enhanced RFI UDM programming capability procurement acceptance criteria. These tests will be performed using US DOD assets. The UK MOD may choose to perform a separate verification testing prior to in-country acceptance of this capability. This acceptance testing will be conducted in a similar manner as the baseline validation testing.

4.11 The US DOD will provide to the UK MOD RFI documentation to include but not be limited to Software Baseline Verification Test (SBVT) outline, and RFI performance data, two weeks after PA execution.

4.12 Compiled UDM mission data loads will be interchangeable between RFI single board computer processors. Each Participant will be able to reciprocate UDM mission data loads for joint tactical environments.

4.13 The enhanced RFI UDM programming capability will support mission data set generation for the current and future UK RFI fleet configuration.

4.14 The RFI Operational Flight Program (OFF) shall be upgraded in support of mission data load performance verification and retrofitted on all UK tactical RFI units.



## Section V

### SHARING OF TASKS

- 5.1 The sharing of tasks and responsibilities will be as follows:
  - 5.1.1 The US DOD will:
    - 5.1.1.1 Provide the Project Manager (PM).
    - 5.1.1.2 Be the Contracting Authority for the Project.
    - 5.1.1.3 Provide validation and test hardware and software, and test ranges.
    - 5.1.1.4 Provide Project administrative support.
  - 5.1.2 The UK MOD will provide to the Project:
    - 5.1.2.1 The Deputy Project Manager (DPM).
    - 5.1.2.2 The Final Acceptance Test requirements or procedures prior to RFP release.
  - 5.1.3 The US DOD and UK MOD will jointly manage the Project to:
    - 5.1.3.2 Harmonize each national operational requirement.
    - 5.1.3.3 Harmonize the Project schedule and procurement strategy.
    - 5.1.3.4 Agree on the delivery schedule and special contractual terms and conditions.

## Section VI

### BREAKDOWN AND SCHEDULING OF TASKS

6.1 The Project pursuant to this PA will proceed according to the following schedule:

6.1.1 Program Milestones:

6.1.1.1 Project Contract award, after written approval from the UK MOD, will be placed by the Contracting Authority and is planned to take place 90 days after PA execution dependent on receipt of UK MOD documentation specified in Paragraph 6.1.2 of the PA.

6.1.1.2 Program Kick-off Meeting to be conducted after award of the Project Contract at a time agreed to by the Participants.

6.1.1.3 Technical Interchange Meetings (TIM) will be conducted at regular intervals as agreed to by Participants after award of Project Contract until completion of the acceptance testing. The location of the meetings shall be on a rotating basis between the representative countries and the development contractor facilities.

6.1.1.4 Preliminary Design Review (PDR) will be conducted at a date agreed to by the Participants after Project Contract award and concurrent with TIM in paragraph 6.1.1.3.

6.1.1.5 Critical Design Review (CDR) will be conducted at a date agreed to by the Participants after Project Contract award and concurrent with TIM in paragraph 6.1.1.3.

6.1.1.6 The UK MOD In-Service Date, by which time testing and commissioning is to be complete, is planned for August 2004.

6.1.1.7 The US DOD In-Service Date is planned for US Fiscal Year 2005.

6.1.2 Documentation:

The following actions must be completed prior to the initiation of a RFP:

6.1.2.1 Intelligence database source agreement between the Participants.

6.1.2.2 Written authorization from the UK MOD for UK-developed global mission data set use by contractor.

6.1.2.3 Mutually agreed upon joint user requirements document.

6.1.2.4 Country unique requirements by each Participant.

6.1.2.5 Intelligence database interface definition document by each Participant.

6.1.2.6 Mutually agreed upon acceptance criteria.

6.1.2.7 TNA objectives from the UK MOD.

6.1.2.8 Post-production support requirements by each Participant.

## Section VII

### MANAGEMENT

7.1 The Project will be directed and administered on behalf of the Participants by the US DOD PM for the Longbow RFI program. The US DOD PM will report directly to the Cooperative Program Manager (CPM) (the US DOD Apache Program Manager, Apache Attack Helicopter Project Office, Redstone Arsenal, AL 35898).

7.2 The UK MOD will designate a Deputy PM from within the Defence Procurement Agency Attack Helicopter Integrated Project Team (the UK MOD DPM, AHIPT, MOD Abbey Wood, Bristol, BS34 8JH) who will be the principle interface between the US DOD PM and the UK MOD.

7.3 The US DOD PM, in consultation with the UK MOD DPM, will be responsible for:

7.3.1 Managing the Project costs, schedule, performance requirements, technical and financial aspects of this PA.

7.3.2 Scheduling and conducting Quarterly Project Reviews (QPR) in conjunction with the TIMs described in Paragraph 6.1.1.3 of this PA. The location and host for the QPRs will rotate between the US and the UK.

7.3.3 Resolving issues that occur during the Project Execution. Issues that cannot be resolved at the US DOD PM level will be referred to the CPM for resolution.

7.3.4 Developing and implementing CPM-approved plans to manage, control the transfer, and disposal of Program Equipment provided by either Participant or acquired jointly by all Participants in accordance with MOU Section XIII (Program Equipment).

7.3.5 Providing Project status reports to the CPM quarterly, or more often if the situation warrants. The UK MOD DPM will be provided with a copy of all quarterly and special project reports.

7.3.6 Coordinating the UK MOD-provided Final Acceptance Test Plan and schedule. The UK MOD DPM will provide in writing to the US DOD PM 60 days prior to the conduct of the Final Acceptance tests the name of the UK MOD Representative who will observe these tests and has the authority to approve test compliance on behalf of the UK MOD.

## Section VIII

### FINANCIAL PROVISIONS

8.1 The Participants estimate that the cost of performance of the work under this PA will not exceed USD \$20Million in US constant Year 2002 dollars.

The US DOD tasks will not cost more than US \$ 8M

The UK MOD tasks will not cost more than US\$ 12M

8.2 Cooperative efforts of the Participants over and above the jointly determined tasks detailed in the SCOPE OF WORK, SHARING OF TASKS and FINANCIAL ARRANGEMENTS Sections will be subject to amendment to this PA or signature of a new PA.

8.3 The travel and subsistence costs for national delegates attending meetings, reviews, and ad hoc groups will be borne individually by the Participants over and above that identified in paragraph 8.1.

8.4 The US DOD PM will be responsible for establishing the Project FMPD, to be approved by the CPM and the UK MOD prior to any transfer of funds. The FMPD will contain the detailed financial management aspects by which the Project will be conducted. The FMPD will be developed and approved having due regard to established best practices and conforming with the Participants' national laws and regulations.

## Section IX

### CLASSIFICATION

9.1 The highest level of classified information that may be exchanged under this PA is SECRET, US/UK Only.